



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

72

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/754,958	01/05/2001	Manfred Auer	4-30730B/D1	6787

1095 7590 03/10/2004

THOMAS HOXIE
NOVARTIS, CORPORATE INTELLECTUAL PROPERTY
ONE HEALTH PLAZA 430/2
EAST HANOVER, NJ 07936-1080

EXAMINER

BAKER, MAURIE GARCIA

ART UNIT	PAPER NUMBER
----------	--------------

1639

20

DATE MAILED: 03/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS
UNITED STATES PATENT AND TRADEMARK OFFICE
P.O. Box 1450
ALEXANDRIA, VA 22313-1450
www.uspto.gov

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Paper No. 19

Application Number: 09/754,958
Filing Date: January 05, 2001
Appellant(s): AUER ET AL.

Gabriel Lopez
For Appellant

EXAMINER'S ANSWER

MAILED
MAR 10 2004
GROUP 1600

This is in response to the appeal brief filed September 30, 2003.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief is correct. However, the After Final amendment filed June 10, 2003 has been reconsidered, please see section (4) below.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct. However, upon further consideration of the After Final amendment filed June 10, 2003, it is deemed that this amendment places the case in better form for appeal by obviating some of the previous rejections and thus has now been entered.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

Appellant's brief presents arguments relating to whether the amendment of June 10, 2003 should be entered. This issue relates to petitionable subject matter under 37 CFR 1.181 and not to appealable subject matter. See MPEP § 1002 and § 1201. However, upon further

Art Unit: 1639

consideration of the case as a whole, the examiner has decided that the After Final amendment places the case in better form for appeal by obviating some of the previous rejections and thus this amendment has now been entered.

Please note section (10) below to see the grounds of rejection as they pertain to the claims from the After Final amendment.

(7) *Grouping of Claims*

Appellant's brief includes a statement that (1) claims 12, 15 & 16; (2) claim 13; and (3) claim 14 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) *Claims Appealed*

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) *Prior Art of Record*

No prior art is relied upon by the examiner in the rejection of the claims under appeal.

(10) *Grounds of Rejection*

The following ground(s) of rejection are applicable to the appealed claims:

The claims are rejected under 35 U.S.C. 112 for written description, scope of enablement and indefiniteness. These rejections are set forth in prior Office Action, Paper No. 11 (mailed

May 6, 2003). To assure clarity of the record, the rejections are reiterated below as they pertain to new claims 17-21 entered from the After Final amendment filed June 10, 2003.

It is first noted in general that claims 12-16 correspond to claims 17-21, respectively. Minor wording changes are made in the rejections below to make sure that they clearly refer to new claims 17-21 entered from the After Final amendment.

Written description: Claims 12, 13, 15 and 16 were rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. **This rejection now applies to claims 17, 18, 20 and 21.**

To satisfy the written description requirement, an applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention. Applicant's claims are directed to compounds "comprising structures of formula II or of formula III" where these formulae are defined as "A-B-D-C-D'- (Formula (II))" and "A-B-D- and -D'-C (Formula (III))". For claims 12, 13, 15 and 16 (now claims 17, 18, 20 and 21), the following applies: (1) no specific linkage sites between each of the moieties are depicted whatsoever and (2) several portions of this molecule are set forth in only functional terms. For example, claim 12 recites that A is selected from various solid supports; however, there is no information as to exactly how the compounds are to be attached to these supports. Moreover, the B portion of the claimed molecules is defined only as "a linker allowing cleavage of

fluorescent conjugates of formula II or of formula III". Applicant's claimed scope represents only an invitation to experiment regarding possible compounds of formula II or formula III and portions thereof that have the claimed functions.

The present application fails to describe sufficient examples of compounds of formula II or formula III that are within the scope of the presently claimed invention. The instant description discloses the preparation of only a very limited number of compounds of formula II or formula III. The instant description also discloses only a limited number of examples of how the instant portions of the molecules (A, B, C, D and D') can be linked together to form such compounds.

With respect to adequate disclosure of the scope of the presently claimed generic applicant is referred to the discussion in *University of California v. Eli Lilly and Co.* (U.S. Court of Appeals Federal Circuit (CAFC) 43 USPQ2d 1398 7/22/1997 Decided July 22, 1997; No. 96-1175) regarding disclosure. For adequate disclosure, like enablement, requires *representative examples* which provide reasonable assurance to one skilled in the art that the compounds falling within the scope both possess the alleged utility and additionally demonstrate that *applicant had possession of the full scope of the claimed invention*. See *In re Riat* (CCPA 1964) 327 F2d 685, 140 USPQ 471; *In re Barr* (CCPA 1971) 444 F 2d 349, 151 USPQ 724 (for enablement) and *University of California v. Eli Lilly and Co* cited above (for disclosure). The more unpredictable the art the greater the showing required (e.g. by "representative examples") for both enablement and adequate disclosure.

Therefore it is deemed that the disclosure is neither representative of the claimed genus, nor does it represent a substantial portion of the claimed genus. Moreover, the claimed genus encompasses members which are yet to be prepared or envisioned. This further evidences that the structural features of the exemplified compounds do not constitute support for the claimed genus or a substantial portion thereof.

Scope of enablement: Claims 12, 13, 15 and 16 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for compounds comprising *specific* A, B, C, D and D' fragments with *defined structures* and *defined linkage sites*, does not reasonably provide enablement for compounds containing **any** A, B, C, D and D' fragments that are linked in **any** way. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims. **This rejection now applies to claims 17, 18, 20 and 21.**

It is clear from applicant's specification how one might practice this invention with *specific* A, B, C, D and D' fragments having *defined linkage sites* and *defined structure*; however, there is insufficient guidance as to how to make/use compounds comprising **any** A, B, C, D and D' fragments that are linked in **any** way. There are many factors to be considered when determining whether there is sufficient evidence to support a determination that a disclosure does not satisfy the enablement requirement and whether any necessary experimentation is "undue". These factors include, but are not limited to:

- (1) the breadth of the claims;

Art Unit: 1639

- (2) the nature of the invention;
- (3) the state of the prior art;
- (4) the level of one of ordinary skill;
- (5) the level of predictability in the art;
- (6) the amount of direction provided by the inventor;
- (7) the existence of working examples; and
- (8) the quantity of experimentation needed to make or use the invention based on the content of the disclosure.

See *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988).

(1-2) The breadth of the claims and the nature of the invention: Applicant's claims are directed to compounds "comprising structures of formula II or of formula III" where these formulae are defined as "A-B-D-C-D' - (Formula (II))" and "A-B-D- and -D'-C (Formula (III))". For claims 12, 13, 15 and 16 (now claims 17, 18, 20 and 21), the following applies: (1) no specific linkage sites between each of the moieties are depicted whatsoever and (2) several portions of this molecule are set forth in only functional terms. Such represents very broad scope.

(3 and 5) The state of the prior art and the level of predictability in the art: Fluorescent conjugate compounds were well known at the time of filing; however, only limited numbers of such compounds were known and the specification gives no guidance to permit one of skill in the art to devise strategies for synthesis of *any* compound of formula II or of formula III defined as "A-B-D-C-D' - (Formula (II))" and "A-B-D- and -D'-C (Formula (III))" that might have this function. The structures of possible variants are sufficiently diverse and one of ordinary skill would not be able to predict their structures. The limitation that the compounds comprise several linked fragments adds to the unpredictability because each portion of various structure would require completely different linkage strategies. Moreover, portions of the claimed compounds that are

defined functionally could have a wide variety of structures with various sites that would be possible for linkage. One of ordinary skill could not guess, *a priori*, how to make and use **any** such compounds as one could not necessarily predict the linkage site and structure in the absence of any guidance without undue experimentation. Applicant's claimed scope of compounds represents only an invitation to experiment regarding possible fragments (A, B, C, D and D') with undefined structure and linkage sites.

(4) The level of one of ordinary skill: The level of skill would be high, most likely at the Ph.D. level. Such persons of ordinary skill in this art, given its unpredictability, would have to engage in undue (non-routine) experimentation to carry out the invention as claimed.

(6-7) The amount of direction provided by the inventor and the existence of working examples: Applicants have only provided examples of very specific compounds that comprise structurally defined fragments linked in a defined way. No generic strategy for determining the structure of each of the fragments and linkage sites is given. Specifically, the instant specification fails to identify that structure which is required for the claimed activity. The teachings of the instant specification coupled with the examples only support specific compounds that are made up of fragments of *defined structure* linked at *defined linkage sites*.

(8) The quantity of experimentation needed to make or use the invention based on the content of the disclosure: The instant specification does not provide to one skilled in the art a reasonable amount of guidance with respect to the direction in which the experimentation should proceed in making and using the full scope of the claimed

compounds. Note that there must be sufficient disclosure, either through illustrative examples or terminology, to teach those of ordinary skill how to make and use the invention as broadly as it is claimed. *In re Vaeck*, 947 F.2d 488, 496 & n.23, 20 USPQ2d 1438, 1445 & n.23 (Fed. Cir. 1991). Therefore, it is deemed that further research of an unpredictable nature would be necessary to make or use the invention as claimed. Thus, due to the inadequacies of the instant disclosure, one of ordinary skill would not have a reasonable expectation of success and the practice of the full scope of the invention would require undue experimentation.

Indefiniteness: Claims 12-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. **This rejection now applies to claims 17-21.**

- A. First, claim 12 (now claim 17) (and all claims dependent thereon) recite compounds “comprising structures of formula II or of formula III” where these formulae are defined as “A-B-D-C-D’- (Formula (II))” and “A-B-D- and -D’-C (Formula (III))”. This alternative expression is confusing. See MPEP 2173.05(h): Alternative expressions are permitted if they present no uncertainty or ambiguity with respect to the question of scope or clarity of the claims. One acceptable form of alternative expression, which is commonly referred to as a Markush group, recites members as being “selected from the group consisting of A, B and C.” See *Ex parte Markush*, 1925 C.D. 126 (Comm’r Pat. 1925). When materials recited in a claim are so related as to constitute a proper Markush group, they may be recited in the conventional manner, or alternatively. For example, if

“wherein R is a material selected from the group consisting of A, B, C and D” is a proper limitation, then “wherein R is A, B, C or D” shall also be considered proper. *This recitation is still confusing even after amendment in the After Final because of the use of the language “structures of formula II or of formula III” and “A-B-D- and -D’-C (Formula (III))”. The use of both “or” and “and” renders the claims unclear.*

- B. The “open-ended” recitations in claim 12 (now claim 17) are also confusing. The examiner is referring to the emphasized portions of the following formulae: “A-B-D-C-D’- (Formula (II))” and “A-B-D- and -D’-C (Formula (III))”. It is simply unclear what is meant by the open-ended nature of these formulae.
- C. *Withdrawn in view of entry of the After Final amendment filed June 10, 2003.*
- D. Additionally, claim 12 (now claim 17) recites the limitations “functionalized surfaces” and “materials grafted with functionalized surfaces”, these are relative terms which render the claim indefinite. The terms are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. That is, how functionalized are the surfaces, and with what?
- E. Claim 13 (now claim 18) recites the term “based” (i.e. “allyl based linkers”); this is a relative term which renders the claim indefinite. The term is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. See also MPEP 2173.05(b). The addition of the word “based” extends the scope of the expression so as to render it indefinite.

- F. Claim 14 (now claim 19) fails to further limit claim 12 (now claim 17), on which it depends. This renders the claim indefinite. Specifically, the structures recited in claim 19 do not appear to fall within the limitations of claim 17. This is because the structures in claim 19 have E portions therein. Thus the compounds do not fall within the “structures of formula II or of formula III” where these formulae are defined as “A-B-D-C-D’- (Formula (II))” and “A-B-D- and -D’-C (Formula (III))”.
- G. Claims 12, 13, 15 and 16 (now claims 17, 18, 20 and 21) are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: the specific structures and linkage sites for each of the moieties. Thus, one of ordinary skill would not know the metes and bounds of the claimed invention. See also rejections under 112, first paragraph above.

(11) Response to Argument

The examiner’s response is number designated in the same order as in Appellant’s Brief.

1. Written description of claims 12, 14 and 15 (now claims 17, 19 and 20)

First it is noted for the record that claim 14 (now claim 19) is *not* rejected for lack of written description.

Appellant argues that “specific linkage sites between the moieties need not be recited since these can be readily known to one of ordinary skill in the art” (Brief, page 2). Appellant

then goes on to point to various portions of the instant specification for support for each of the moieties contained in the claimed compounds. Appellant also points to some prior art for support. Appellant argues that this constitutes sufficient support for the compounds as claimed. The examiner respectfully disagrees. The examiner's position is that the definitions in the specification for the terms discussed in the rejection are *very broad*. This is not adequate description of the compounds as claimed, especially with respect to the linkages between each of the components. Pointing to the prior art and stating that such linkage sites are known is also not deemed to be adequate support. There is simply too much variability (unpredictability) in the selection of such linkage sites.

Thus the claims could encompass an infinite number of variations. Note that "the essential goal of the description of the invention requirement is to clearly convey the information that an applicant has invented the subject matter which is claimed." *In re Barker*, 559 F.2d 588, 592 n.4, 194 USPQ 470, 473 n.4 (CCPA 1977), cert. denied, 434 U.S. 1064 (1978). Another objective is to put the public in possession of what the applicant claims as the invention so that the public may ascertain if the patent applicant claims anything that is in common use, or already known. *Evans v. Eaton*, 20 U.S. (7 Wheat.) 356 (1822).

The language of the specification should describe the claimed invention so that one skilled in the art can recognize what is claimed. A description of a compound in terms of its function fails to distinguish the compound from others having the same activity or function. A description of what a material does, rather than of what it is, usually does not suffice. The disclosure must allow one skilled in the art to visualize or recognize the identity of the subject matter purportedly described. *University of California v. Eli Lilly and Co.* (U.S. Court of

Appeals Federal Circuit (CAFC) 43 USPQ2d 1398 7/22/1997 Decided July 22, 1997; No. 96-1175). Appellant argues that for moiety B, the linker must allow cleavage of the fluorescent conjugates. This is a functional description that does not adequately describe such a linkage. Also, Appellant argues that, for example, in moiety C “[p]ossible specific linkage sites are clearly defined” (Brief, page 4, top). The examiner disagrees as there is nothing in the claim that makes it clear what sites are the linkage sites. The same holds true for moiety D.

Appellant points to specification examples for support; however, for each of the moieties, there is too much variability (unpredictability) in the nature of the possible linkage sites and the number of examples is insufficient. Adequate disclosure, like enablement, requires *representative examples*. The more unpredictable the art the greater the showing required (e.g. by “representative examples”) for both enablement and adequate disclosure. A representative number of species means that the species that are adequately described are representative of the entire genus. When there is substantial variation within the genus, one must describe a sufficient variety of species to reflect the variation within the genus. The examiner’s position is that this has not been done. This is discussed further below.

On pages 4-6 of the Brief, appellant argues that they are entitled to use functional language in the claims as “a man of ordinary skill is immediately able to carry out the invention without undue experimentation” (Brief, page 4). Undue experimentation is a factor for questions of enablement and not written description. However, in the interest of clarity of the record, the examiner will address these arguments as follows. These statements will also apply to the Response to the arguments toward enablement.

Appellant argues that nothing is vague or open-ended about the list of solid supports (Brief, page 4). The examiner respectfully disagrees. Please see remarks below with respect to the indefiniteness of these recitations (section numbered 3).

Appellant then goes on to argue that the examiner has mischaracterized the claims in two ways (Brief, page 5). First, the examiner's statement that the claims "encompass an infinite number of variations" is stated to be incorrect. To be precise, the examiner stated that "the claims could encompass an infinite number of variations" (emphasis added). In fact, to quote the examiner's argument in whole:

The examiner's position is that the definitions in the specification for the terms discussed in the rejection are *very broad*. This is not adequate description of the compounds as claimed, especially with respect to the linkages between each of the components. Thus the claims could encompass an infinite number of variations.

Thus the examiner maintains that, due to the absence of description of the linkages between each of the components, the claims could indeed encompass an infinite number of variations. It is also noted that the claims are open-ended.

Second, Appellant states that the examiner has mischaracterized the level of predictability in the art. The examiner respectfully disagrees. As stated in the enablement rejection, the examiner's position is as follows:

Fluorescent conjugate compounds were well known at the time of filing; however, only limited numbers of such compounds were known and the specification gives no guidance to permit one of skill in the art to devise strategies for synthesis of *any* compound of formula II or of formula III defined as "A-B-D-C-D'- (Formula (II))" and "A-B-D- and -D'-C (Formula (III))" that might have this function. The structures of possible variants are sufficiently diverse and one of ordinary skill would not be able to predict their structures. The limitation that the compounds comprise several linked fragments adds to the unpredictability because each portion of various structure would require completely different linkage strategies. Moreover, portions of the claimed compounds that are defined functionally could have a wide variety of structures with various sites that would

Art Unit: 1639

be possible for linkage. One of ordinary skill could not guess, *a priori*, how to make and use **any** such compounds as one could not necessarily predict the linkage site and structure in the absence of any guidance without undue experimentation. Applicant's claimed scope of compounds represents only an invitation to experiment regarding possible fragments (A, B, C, D and D') with undefined structure and linkage sites.

Also, as stated in the written description rejection, the more unpredictable the art the greater the showing required (e.g. by "representative examples") for both enablement and adequate disclosure. Regarding the comment on page 6 of the Brief concerning *University of California v. Eli Lilly and Co.* (U.S. Court of Appeals Federal Circuit (CAFC) 43 USPQ2d 1398 7/22/1997 Decided July 22, 1997; No. 96-1175) and the statement that in chemical cases a generic formula "is normally an adequate description", it is noted that the claimed formulas are not truly generic but are completely open-ended (i.e. open to inclusion of any other portions, linked in any way). Appellants argues that since the instant case is chemical in nature that Lilly does not apply. The examiner still maintains that the case is on point with respect to the disclosure in the instant case. Again, in the instant case a true generic formula is not present as the linkages between the moieties are not set forth.

Appellant also argues that since certain other cited US patents use functional language, they are entitled to same. However, whether similar claims have been allowed in other cases is immaterial, as stated by the PTO Board of Patent Appeals & Interferences in *Ex parte Balzarini* 21 USPQ 2d 1892 (1991):

Appellants have cited throughout this proceeding a number of U.S. Patents asserted to contain claims to treatment of humans suffering from AIDS using various anti-viral compounds in which evidence of in vivo testing was not submitted. However, it is well settled that whether similar claims have been allowed to others is immaterial. See *In re Giolito*, 530 F.2d 397, 188 USPQ 645 (1976).

Appellants argue that the citations reflect the state of the art and terms used by practitioners in the art and thus are material. Although the terms used in the instant claims may have been used in other patents (or in the prior art), the examiner maintains that such terms are not so well established as to their meaning that they do not need to be adequately described in the instant case.

Lastly, an objective standard for determining compliance with the written description requirement is, “does the description clearly allow persons of ordinary skill in the art to recognize that he or she invented what is claimed.” *In re Gosteli*, 872 F.2d 1008, 1012, 10 USPQ2d 1614, 1618 (Fed. Cir. 1989). The examiner maintains because of the breadth of the claims and the unpredictability of the art, the above standard is not met.

2. Enablement of claims 12, 15 and 16 (now claims 17, 20 and 21)

Most of the response set forth above is relevant to the question of enablement. However, specific points from the Brief on pages 6-7 are addressed here.

Appellants argue that since the claims are limited to the “C” portion that was granted in the parent US patent, the claims are enabled. However, as stated in the rejection, no limitations on the specific structure (i.e. specific structure of all elements and linkage between elements) are given and, as such, this could read on a wide variety of structures. The invention is such that each of the components must be present in operable form for successful practice of the invention. For example, each element must be able to be linked to the others and must retain the desired activity. Most importantly, *the instant specification fails to identify that structure (with respect to linkages) which is required for the claimed activity.*

Appellant argues that the examples present in the instant specification are sufficient for an enabling disclosure. The examiner respectfully disagrees. Appellant has only provided examples of very specific compounds that comprise structurally defined fragments linked in a defined way. No generic strategy for determining the structure of each of the fragments and linkage sites is given. Specifically, the instant specification fails to identify that structure which is required for the claimed activity. The teachings of the instant specification coupled with the examples only support specific compounds that are made up of fragments of *defined structure* linked at *defined linkage sites*.

As stated in the rejection, this is an unpredictable area of the art. The “predictability or lack thereof” in the art refers to the ability of one skilled in the art to extrapolate the disclosed or known results to the claimed invention. If one skilled in the art can readily anticipate the effect of a change within the subject matter to which the claimed invention pertains, then there is predictability in the art. On the other hand, if one skilled in the art cannot readily anticipate the effect of a change within the subject matter to which that claimed invention pertains, then there is lack of predictability in the art. The examiner deems that the effects of a change would not be readily apparent to one of ordinary skill.

In cases involving unpredictable factors, such as most chemical reactions and physiological activity, the scope of enablement obviously varies inversely with the degree of unpredictability of the factors involved. See *In re Fisher*, 57 CCPA 1099, 427 F.2d 833, 839, 166 USPQ 18,24(1970). Additionally, the Board has held on the issue of unpredictability that “... the unpredictability of an art area alone may be enough to create a reasonable doubt as to the

accuracy of statements in the specification.” *Ex parte Singh*, 17 U.S.P.Q.2d 1714,1716 (B.P.A.I. 1990).

See MPEP 716.09: Once the examiner has established a *prima facie* case of lack of enablement, the burden falls on the applicant to present persuasive arguments, supported by suitable proofs where necessary, that one skilled in the art would have been able to make and use the claimed invention using the disclosure as a guide. *In re Brandstadter*, 484 F.2d 1395, 179 USPQ 286 (CCPA 1973). Appellant points to the 17 examples in the instant specification as being enabling for the full scope of the claims and states that a *prima facie* case of enablement has not been made. However, the examiner maintains that the instant specification does not provide to one skilled in the art a reasonable amount of guidance with respect to the direction in which the experimentation should proceed in making and using the full scope of the claimed compounds. For these reasons the rejection under 35 U.S.C. 112, first paragraph is deemed proper and is maintained.

3. Indefiniteness of claims 12, 15 and 16 (now claims 17, 20 and 21)

Most of the response set forth above is also relevant to the question of indefiniteness. However, specific points from the Brief on page 7 are addressed here.

Appellant states that “based” and “functionalized surfaces” are not relative terms and are well known to the man of ordinary skill. The examiner respectfully disagrees. As stated in the rejection, how functionalized are the surfaces, and with what? Also, the addition of the word “based” (as in “allyl based linkers”) extends the scope of the expression so as to render it indefinite.

Appellant also argues that the “dashes on D and D’ in the formulas are points of attachment. This is not confusing to one in the chemical arts” (Brief, page 7). The examiner respectfully disagrees. In the instant case, it is simply unclear as to what these so-called “points of attachment” are attaching. Thus the scope of the compounds claimed is not clear. Note the following from MPEP 2173.02: If the scope of the invention sought to be patented cannot be determined from the language of the claims with a reasonable degree of certainty, a rejection of the claims under 35 U.S.C. 112, second paragraph is appropriate. *In re Wiggins*, 488 F.2d 538, 179 USPQ 421 (CCPA 1973).

Also, although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Also, applicant is directed to MPEP 2173.05(a): [t]he meaning of every term used in a claim should be apparent from the prior art or from the specification and drawings at the time the application is filed.

4. Description, enablement and indefiniteness of claim 13 (now claim 18)

Appellant argues that since the B moiety is specifically defined, this claim is adequately described, enabled and definite. The examiner respectfully disagrees for the following reasons.

First, the B moiety is not specifically defined as the addition of the word “based” (as in “allyl based linkers”) extends the scope of the expression so as to render it indefinite. Second, the claim does not define any of the other portions of the compound with enough specificity to render them adequately described or enabled for the reasons set forth above.

5. Description, enablement and indefiniteness of claim 14 (now claim 19)

First it is noted for the record that claim 14 (now claim 19) is *not* rejected for lack of written description or enablement. This claim is only rejected under 35 U.S.C. 112, second paragraph. Specifically, the claim is rejected because it is confusing. It appears that claim 19 fails to further limit claim 17, on which it depends. This renders the claim indefinite. Specifically, the structures recited in claim 19 do not appear to fall within the limitations of claim 17. This is because the structures in claim 19 have E portions therein. Thus the compounds do not fall within the “structures of formula II or of formula III” where these formulae are defined as “A-B-D-C-D’- (Formula (II))” and “A-B-D- and -D’-C (Formula (III))”.

Appellants argue that a dependent claim can add an element which has not been recited in a prior claim. While this is true, the recitation in the instant claim is indefinite as it adds a moiety E that is not defined in any way. *Moreover, importantly, this element is added to the instant formulas in such a way that they no longer fall within the definitions of “A-B-D-C-D’- (Formula (II))” and “A-B-D- and -D’-C (Formula (III))” from claim 17. Note that claim 19 recites formulas of A-B-C-D’-E; A-B-E-C; A-B-E-D’-C; and A-B-D-E-C. These do NOT fall within “A-B-D-C-D’- (Formula (II))” and “A-B-D- and -D’-C (Formula (III))” from claim 17.*

6. Entry of amendment of June 10, 2003

Although this issue relates to petitionable subject matter under 37 CFR 1.181 and not to appealable subject matter, it has been addressed in this action for completeness. As stated above, upon further consideration of the case as a whole, the examiner has decided that the After Final

Application/Control Number: 09/754,958

Page 21

Art Unit: 1639

amendment places the case in better form for appeal by obviating some of the previous rejections and thus this amendment was entered.

Art Unit: 1639

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



MAURIE GARCIA BAKER PH.D
PRIMARY EXAMINER

Maurie G. Baker

March 8, 2004

Conferees

Supervisory Patent Examiner Andrew Wang

Primary Examiner Bennett Celsa



BENNETT CELSA
PRIMARY EXAMINER

Conferee



ANDREW WANG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600

THOMAS HOXIE

NOVARTIS, CORPORATE INTELLECTUAL PROPERTY

ONE HEALTH PLAZA 430/2

EAST HANOVER, NJ 07936-1080